



West Central Phoenix

Water Quality Assurance Revolving Fund (WQARF) Sites
East Grand Avenue, North Canal Plume,
North Plume, West Grand Avenue, and West Osborn Complex
Phoenix, Arizona

Community Involvement Plan



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Acronyms and Glossary of Terms

Disclaimer: All telephone numbers, email addresses and contact names are subject to change after the date of this publication. The statistical data provided in the community demographics section is approximated based on information provided by the 2010 U.S. Census.

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Community Involvement Plan – Introduction

The Arizona Department of Environmental Quality (ADEQ) is committed to involving citizens in the cleanup of contaminated sites in Arizona per the Water Quality Assurance Revolving Fund (WQARF) program. Created under the Environmental Quality Act of 1986 to support hazardous substance cleanup efforts in the state, WQARF is dependent upon legislative appropriations, cost recovery from responsible parties, corporate income taxes, and special fees for its funding.

The WQARF program identifies sites that are most in need of cleanup and adds them to the WQARF Registry. Sites on the WQARF Registry receive first consideration for distribution of funds for investigation and cleanup. WQARF Registry sites are assigned a numeric score based in part on the types of contaminants present, the location of the contaminants, and the number of people that may be affected by the contaminants. These scores are only one criterion used to help determine relative risk at the site and do not necessarily mean that there is a direct risk to humans or the environment.

The West Central Phoenix community involvement area is located in west-central Phoenix, Arizona, and includes the East Grand Avenue, North Canal Plume, North Plume, West Grand Avenue, and West Osborn Complex WQARF sites. Collectively these sites will be referred to as the West Central Phoenix WQARF sites. In 1987, the West Central Phoenix area was designated as a WQARF Priority List site. In 1997, ADEQ established the WQARF Registry, which replaced the WQARF Priority List. In 1998, five West Central Phoenix sites were placed on the WQARF Registry.

- The East Grand Avenue site was placed on the WQARF Registry with a score of 26 out of a possible 120 (revised in 2000 to 31 out of 120).
- The North Canal Plume site was placed on the WQARF Registry with a score of 22 out of a possible 120 (revised in 2000 to 27 out of 120).
- The North Plume site was placed on the WQARF Registry with a score of 50 out of a possible 120 (revised in 2000 to 55 out of 120).
- The West Grand Avenue site was placed on the WQARF Registry with a score of 17 out of a possible 120 (revised in 2000 to 22 out of 120).
- The West Osborn Complex site was placed on the WQARF Registry with a score of 47 out of a possible 120 (site score not revised).

Arizona Revised Statutes (A.R.S.) § 49-287.03(B) and § 49-289.03, as well as Arizona Administrative Code (A.A.C.) R18-16-404, specify that a community involvement plan (CIP) be developed for each site before beginning the Remedial Investigation. Because the West Central Phoenix WQARF sites are located near each other, one CIP has been developed to encompass all five sites. The purpose of the CIP is to provide a meaningful process for two-way communication between ADEQ and the public to keep the community informed about the progress of the site investigation and remediation. The CIP will accomplish this goal through the following:

1. Ensuring public access to project information in a timely manner;
2. Identifying a community involvement area and opportunities for community members and other stakeholders to participate in the decision-making process associated with the environmental investigation and remediation of the site;
3. Establishing a Community Advisory Board (CAB);
4. Designating an ADEQ spokesperson; and
5. Developing a plan for distributing site information to residents within the site's community involvement area.

This CIP describes ADEQ's role and public participation opportunities regarding the WQARF process. ADEQ community involvement staff will review and update this plan on a regular basis considering site-specific developments and public health and environmental impacts, as well as public comments and community concerns. ADEQ also will solicit and consider CAB input to this CIP.

A. WQARF Process

The goal of the WQARF process is to clean up sites with groundwater and/or soil contamination to ensure human health and the environment are protected. The WQARF process uses a step-by-step approach to thoroughly investigate contaminated sites and determine the best method for achieving site cleanup. This process can take months, years, or in some cases, decades, to complete. Because each site is different, the WQARF process helps determine which cleanup method is best for a specific site.

For sites where the contamination has minimal impact to humans, cleanup may be achieved by restricting land or water use and allowing the contamination to dissipate naturally. For this method, regular monitoring of the groundwater or soil would occur to ensure that the contamination continues to decrease. For sites where the contamination may impact human use, the cleanup method may involve restricting land and water use, actively treating or filtering the groundwater to remove contamination, digging up any contaminated soil and removing it from the area, bioremediation/other in situ methods, or a combination of these actions.

The WQARF process flow chart that follows depicts the phases in the WQARF process from initial investigation of a site suspected of having contamination, to the implementation of the cleanup method (also known as the remedy), to eventual removal of the site from the WQARF Registry upon satisfactory cleanup. Detailed definitions of each WQARF phase can be found in the glossary at the end of this CIP.

WQARF PHASES



B. Designated Spokesperson

A designated spokesperson will inform the public of upcoming events, ensure that the CIP is implemented according to schedule, and act as liaison between ADEQ and the community. In addition, the spokesperson will determine methods for personal contact, arrange for the availability of a translator at meetings as needed, and coordinate the recording of presentations, when appropriate. For further information regarding the West Central Phoenix WQARF sites, please contact the designated spokesperson at the following:

Community Involvement Coordinator

ADEQ

1110 West Washington Street, 4th Floor

Phoenix, AZ 85007

(602) 771-4189

Or

(800) 234-5677, Ext. 6027714189

Fax: (602) 771-4138

View Community Involvement Contacts Online:

<http://www.azdeq.gov/function/about/waste.html#sps>

C. Information Repository and Website

Information repositories of existing public documents pertaining to the West Central Phoenix WQARF sites are available for review both online and in person. Documents found in the repositories vary across the five sites, but include WQARF Site Registry Reports, Data, Remedial Investigation Reports, Remedial Objectives Reports, and Feasibility Study Reports, as well as site fact sheets, public notices, meeting documents, and correspondence related to the WQARF sites. Technical documents relating to future milestones in the WQARF process will be made available to the public as they are completed. Interested parties can review site information by visiting the information repository online or in person as follows:

Online

http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_East_Grand_Avenue.html

http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_North_Canal_Plume.html

http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_North_Plume.html

http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_West_Grand_Avenue.html

http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_West_Osborn_Complex.html

In Person

ADEQ Records Center

1110 West Washington Street

Phoenix, AZ 85007

(602) 771-4380

Or

(800) 234-5677, Ext. 6027714380

(Please call to make an appointment)

To make alternate arrangements to review documents in person at a location nearest you, contact the ADEQ Community Involvement Coordinator.

The contaminated groundwater plumes for the five West Central Phoenix WQARF sites are shown on the following map.

ADEQ
Arizona Department of Environmental Quality

Area Map
N 101st Ave
Phoenix
State of Arizona
Phoenix
Map Date: August 2014

Legend

- EAST GRAND AVENUE PLUME
- NORTH PLUME
- NORTH CANAL PLUME
- WEST GRAND AVENUE PLUME
- WEST OSBORN COMPLEX PLUME

0 1,500 3,000
Feet

Map Date: August 2014

WASTE PROGRAMS DIVISION
GIS and Data Management Unit
Map prepared by Arizona Department of Environmental Quality (ADEQ), GIS and Data Management Unit, 711 University Avenue, Suite 100, Phoenix, AZ 85004
NCP Remedial Action Plan (RAP) for the West Grand Avenue Plume
NCP Remedial Action Plan (RAP) for the West Osborn Complex Plume
Data Sources: Arizona Department of Environmental Quality, Arizona Land Resources Information System, Arizona Department of Transportation, San Jose, CA
Prepared by: ADEQ, August 2014

*These boundaries represent the site map information provided to the public. The map is intended to provide the public with basic information on the estimated geographic extent of contamination and is not intended to be used for legal purposes. The actual extent of contamination may be different from the estimated extent shown on this map. For more information, please contact the ADEQ.

West Central Phoenix—East Grand Avenue

The West Central Phoenix—East Grand Avenue WQARF site contaminated groundwater plume is bounded approximately by Whitton Avenue to the north, Earll Drive to the south, 27th Avenue to the east, and 33rd Avenue to the west. The West Central Phoenix—East Grand Avenue site was placed on the WQARF Registry in March 1998 with an eligibility and evaluation score of 26 out of a possible total of 120. This score was reevaluated in 2000 and revised to 31 out of 120.

The major factor leading to the site's score was the presence of volatile organic compounds (VOCs) in groundwater at levels exceeding Arizona Aquifer Water Quality Standards (AWQS).

The site contaminants of concern are tetrachloroethene (PCE), trichloroethene (TCE), and 1,1-dichloroethene (1,1-DCE). Other contaminants that have been found at the site are benzene, toluene, ethylbenzene, and nitrates.

In September 2013, Univar USA, Inc. (Univar) shut down the soil vapor extraction (SVE) system it was running at a former Van Waters and Rogers (VW&R) facility. The VW&R facility had previously been identified as a source of site contamination. The SVE system was shut down because it was no longer extracting enough VOCs to justify continued operation. The SVE system removed approximately 1,200 pounds of VOCs before being shut down.

Univar continues to conduct groundwater monitoring every 6 months. Monitoring of the contaminant plume has shown a decrease in contaminant concentrations. Univar is conducting a Feasibility Study to evaluate specific remedial measures and strategies required to meet remedial objectives.

West Central Phoenix—North Canal Plume

The West Central Phoenix—North Canal Plume WQARF site contaminated groundwater plume is bounded approximately by Indian School Road to the north, Flower Street to the south, 33rd Avenue to the east, and 40th Avenue to the west. The West Central Phoenix—North Canal Plume site was placed on the WQARF Registry in May 1998 with a score of 22 out of a possible 120. The site score was reevaluated in 2000 and revised to 27 out of 120. The major factor leading to the site's score was the presence of VOCs in groundwater at levels exceeding AWQS limits.

The site contaminants of concern in groundwater are PCE, TCE, 1,1-DCE, and chromium.

Remedial activities within the West Central Phoenix – North Canal Plume WQARF site include excavation of a sump, drywell, and surrounding soil at the former Osborn Products Company and excavation of underground storage tanks (USTs) and surrounding soil.

In 2014, ADEQ conducted groundwater sampling and water level monitoring at the site as well as a passive soil gas survey along 33rd Avenue. ADEQ found that the pumping of Salt River Project wells in the area appeared to be affecting groundwater levels at the site. Additionally, there was evidence that the groundwater contaminant plume was migrating to the south.

Data has already been collected for the Land and Water Use Report, and the Final Remedial Investigation Report will be completed in 2015.



Groundwater Monitoring

West Central Phoenix—North Plume

The West Central Phoenix—North Plume WQARF site contaminated groundwater plume is bounded approximately by Highland Avenue to the north, Indian School Road to the south, 37th Avenue to the east, and 43rd Avenue to the west. The West Central Phoenix—North Plume site was placed on the WQARF Registry in March 1998 with a score of 50 out of a possible 120. The site score was reevaluated in 2000 and revised to 55 out of 120. The major factor leading to the site's score was the presence of VOCs in groundwater at levels exceeding AWQS limits.

The site contaminants of concern in groundwater are PCE, TCE, and 1,1-DCE. Other contaminants that have been found at the site are benzene, toluene, ethylbenzene, total xylenes, methyl tertiary butyl ether (MTBE), and nitrates.

An SVE system was installed at the Hill Brothers Chemical Company and operated for approximately one and a half years and removed approximately 275 pounds of VOCs. Hill Brothers Chemical Company was issued a no further action (NFA) determination for soils in 2010.

In June 2014, the SVE system operating at the F&B Mfg. Co. facility, a source of site contamination, was modified to more efficiently remove moisture from its air stream and allow for year-round operation. The granular activated carbon was also changed out in June. During the first half of 2014 the SVE system removed, on average, 113 pounds of PCE from the soil each month. Overall the SVE system has removed more than 45,158 pounds of VOCs.

West Central Phoenix—West Grand Avenue

The West Central Phoenix—West Grand Avenue WQARF site contaminated groundwater plume is bounded approximately by Osborn Road to the north, Earll Drive to the south, 33rd Avenue to the east, and 34th Drive to the west. The West Central Phoenix—West Grand Avenue site was placed on the WQARF Registry in March 1998 with a score of 17 out of a possible 120. The site score was reevaluated in 2000 and revised to 22 out of 120. The major factor leading to the site's score was the presence of TCE in groundwater at levels exceeding AWQS limits.

The site contaminant of concern in groundwater is TCE.

A UST and surrounding soil were excavated and an SVE system was operated at the Layke Inc. facility for approximately two years and removed approximately 200 pounds of VOCs. Layke Inc. was issued an NFA determination for soils in 2002.

TCE was not detected above the AWQS limit in groundwater sampling conducted in October 2012 and January 2013. The Final Feasibility Study Report was issued in June 2013 and recommended no action as the contaminant concentrations were below AWQS limits and were trending downward.

West Central Phoenix—West Osborn Complex

The West Central Phoenix—West Osborn Complex WQARF site contaminated groundwater plume is bounded approximately by the Grand Canal to the north, Van Buren Street to the south, 33rd Avenue to the east, and 51st Avenue to the west. The West Central Phoenix—West Osborn Complex site was placed on the WQARF Registry in April 1998 with a score of 47 out of a possible 120. The major factor leading to the site's score was the presence of VOCs in groundwater at levels exceeding AWQS limits.

The site contaminants of concern in groundwater are TCE and PCE. Other contaminants at the site are MTBE and nitrates.

During investigation of the site, ADEQ determined that there were two groundwater plumes: a shallow groundwater system plume and a lower sand and gravel subunit plume. In January 2012, ADEQ approved the Feasibility Study Report for the shallow groundwater system plume. In May 2012, ADEQ approved the Feasibility Study Report for the lower sand and gravel subunit plume.

In 2013, ADEQ issued the Proposed Remedial Action Plans for the shallow groundwater system plume and the lower sand and gravel subunit plume at the site. In 2014, ADEQ modified the Proposed Remedial Action Plans to address public comments and update the documents based on the most recent groundwater sampling data.

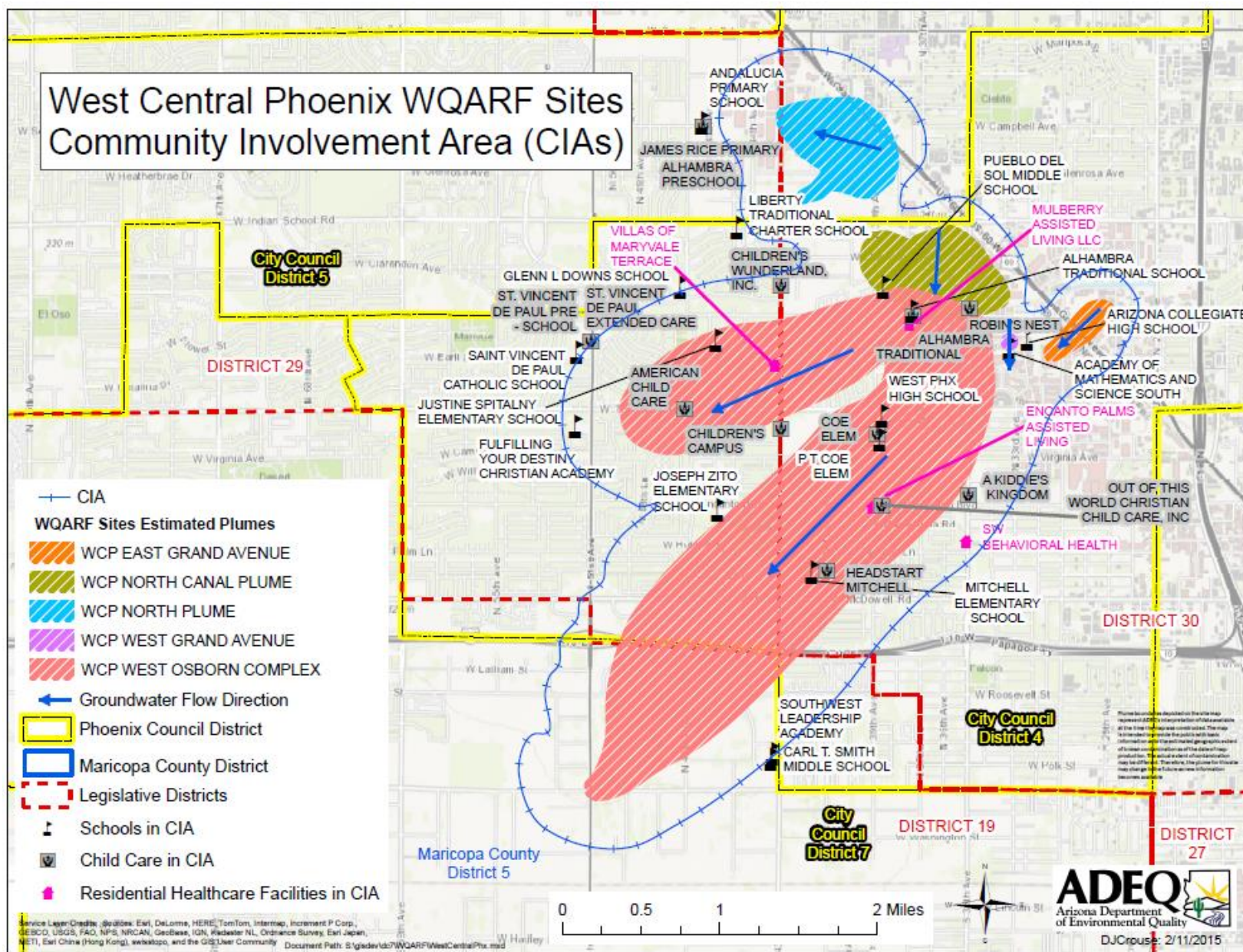
For more detailed information about the history of the West Central Phoenix WQARF sites, please refer to Appendix A (Site Histories) of this CIP.

Chapter 2 – Community Profile

A. Community Involvement Area

ADEQ has established a community involvement area for each site per A.R.S. § 49-289.02(A) and (B). A community involvement area is established to designate a geographic area to which mass mailings will be delivered. Community involvement area boundaries are determined based on site-specific characteristics such as the affected media (i.e., soil, surface water, or groundwater), exposure routes, proximity to residential areas and public facilities, and level of community interest. The community involvement area may change as new information is received.

The map on the following page illustrates the 2016 community involvement area for the five West Central Phoenix WQARF sites.



B. Community Demographics

As the most populated city in Arizona, Phoenix's population in 2010 was 1,445,632 (as reported by the 2010 U.S. Census). The community involvement area boundaries for the West Central Phoenix WQARF sites encompass six zip codes (85009, 85017, 85019, 85031, 85035, and 85043) and are estimated to contain approximately 58,844 households. The West Central Phoenix WQARF sites are located within the boundaries of the City of Phoenix and consist of a mixture of commercial businesses, light industrial businesses, and residential neighborhoods.

The 2010 U.S. Census data for the zip codes encompassed by the community involvement areas indicates that the total population was 224,973, with an average household size of 3.7 persons. Residents of the areas consisted of more homeowners (53%) than renters (47%). The median resident age is 26, which is younger than the median age for Arizona residents as a whole (35.9).¹

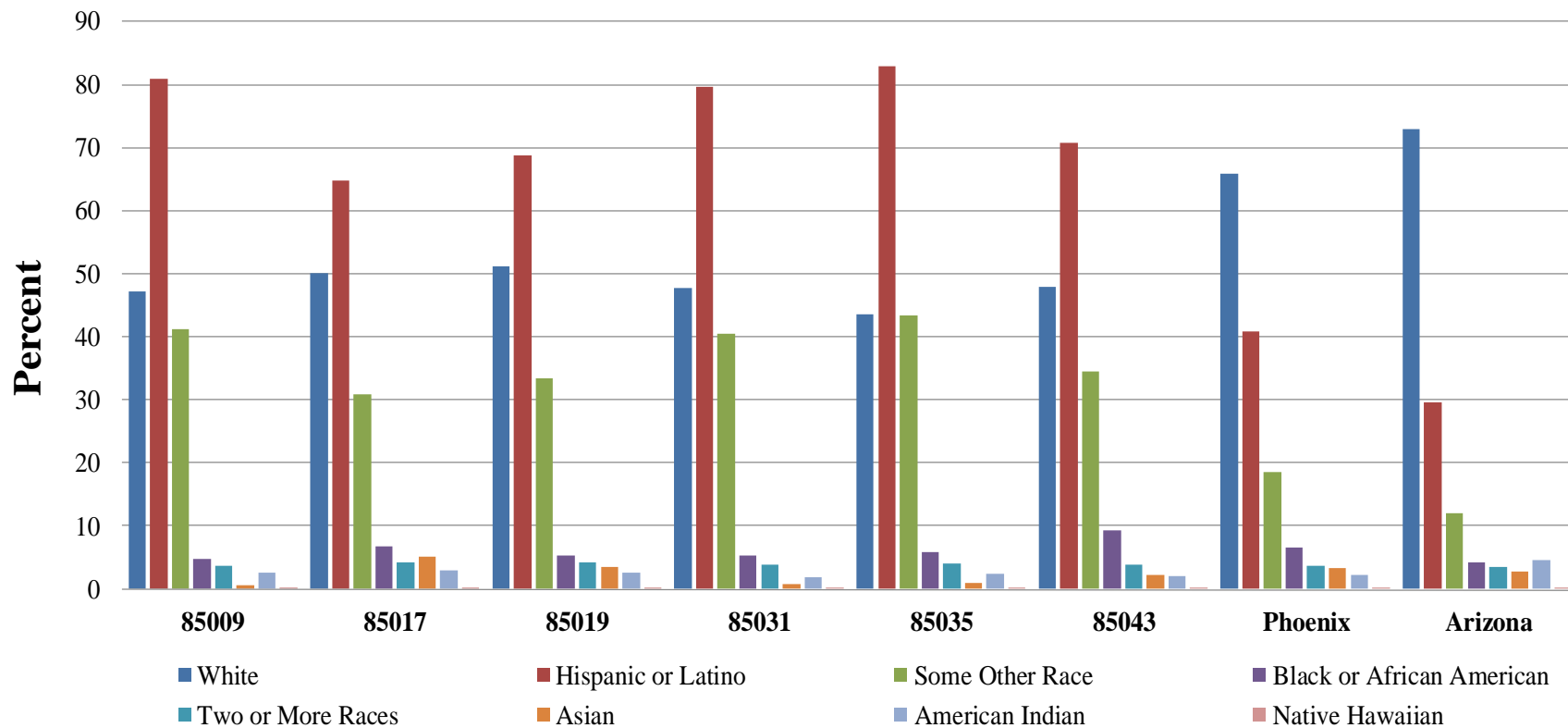
As represented in the Population Groups graph that follows, the 2010 U.S. Census data shows that residents in the West Central Phoenix WQARF sites community involvement area identify themselves as approximately 47.9% White; 37.3% Some Other Race; 6.2% Black or African American; 4.0% Two or More Races; 2.4% American Indian or Alaska Native; 2.2% Asian; and 0.1% Native Hawaiian.² According to the U.S. Census Bureau, people of Hispanic or Latino descent may be of any race. People identifying themselves as Hispanic or Latino within the West Central Phoenix WQARF sites community involvement area comprised 74.6% of the population, which is greater than the 29.6% average Hispanic and Latino population for the State of Arizona. This higher than average Hispanic and Latino population may indicate the need for Spanish translation services and will be taken into consideration by ADEQ along with community feedback and state guidelines.

All percentages given in the following Population Groups chart and the previous two paragraphs are median averages of the 2010 U.S. Census data for the zip codes within the West Central Phoenix WQARF sites community involvement area. Although U.S. Census data has been chosen to establish the basis of community demographics, ADEQ is aware of the limitations of using this data. The data is only as accurate as the individuals that provide the information and the date at which the information was collected. ADEQ is aware that some populations may be inadequately represented by U.S. Census data and welcomes additional feedback from the community.

¹ Calculations are an average of the six zip codes.

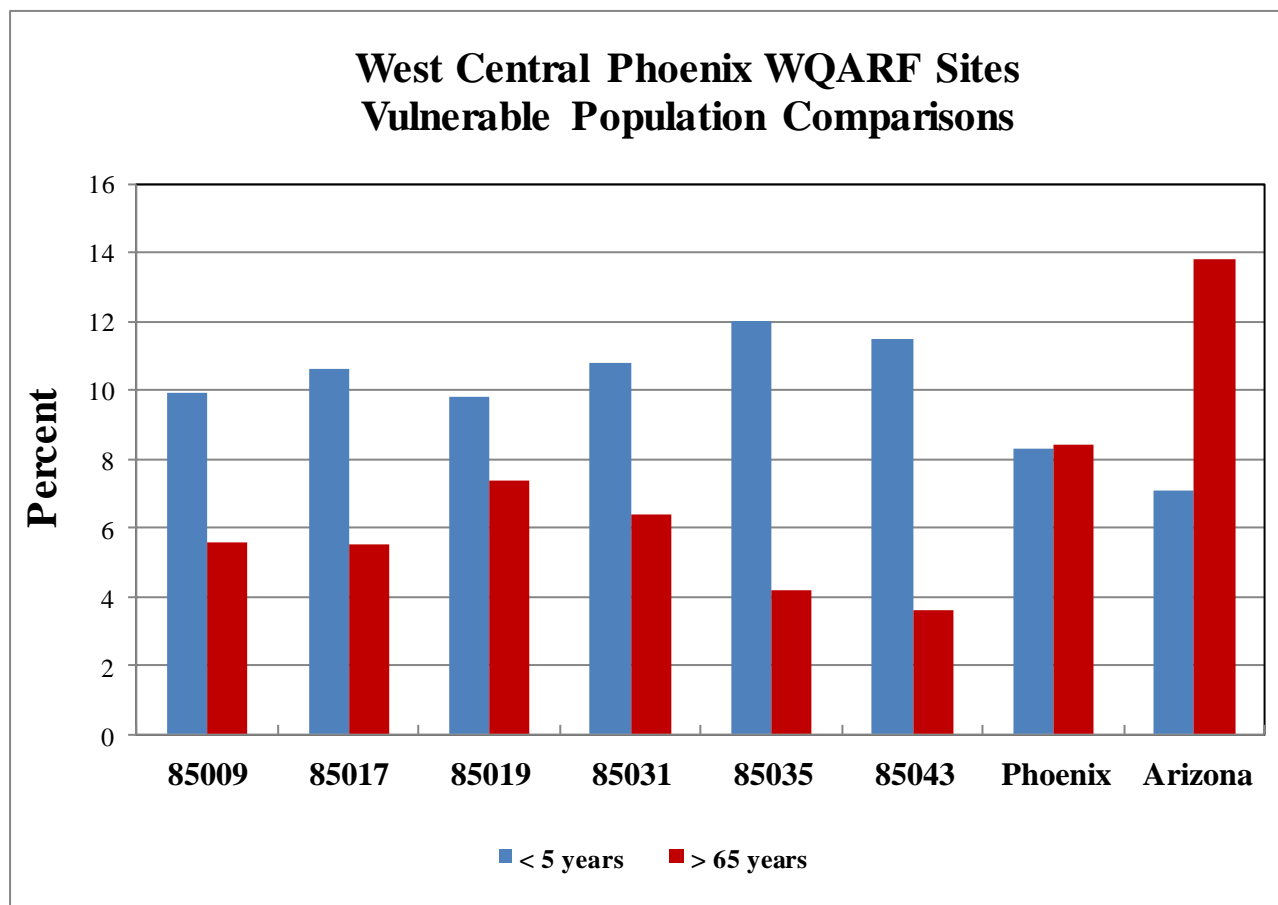
² Percentages are an average of the six zip codes and are rounded to the nearest tenth and thereby do not total 100 percent exactly.

West Central Phoenix WQARF Sites Population Groups



Note: Individuals identifying as Hispanic or Latino may be of any race and are already accounted for in the population percentages for the racial groups within each zip code, city, and state.

ADEQ also looks at the community as a whole with an emphasis on the percentage of people who are unusually sensitive to contaminants. These people are those who are under the age of 5 or over the age of 65, as well as people with health issues. The percentages of age-sensitive populations within the West Central Phoenix WQARF sites community involvement area, according to 2010 U.S. Census data, are presented in the Vulnerable Population Comparisons graph that follows.



For further demographic information regarding the community involvement area, please refer to the listing of neighborhood associations, community schools, and vulnerable population centers in Appendix B, and local and state elected officials in Appendix C.

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Chapter 3 – Community Issues and Concerns

To better understand the community and its concerns, ADEQ conducted telephone interviews with community and CAB members who have lived or worked in the area surrounding the West Central Phoenix WQARF sites. The CAB members are listed in Appendix D. The following is a summary of the common concerns of the interviewees involving the environment, health, and ADEQ outreach activities.

A. Environmental and Health Concerns

Only 2 of the 17 interviewees were familiar with the West Central Phoenix WQARF sites. As a result some interviewees expressed a desire to learn as much as they could about the site and needed basic questions answered on the type of contaminants and where the contamination was located. Most interviewees also were concerned with the severity of the contamination, the length of remedial action activities, and changes in property values. Specific environmental and health concerns expressed by the interviewees included the following:

- What are the effects of the contaminants on the health of the community?
- What are the effects of the contaminants on water quality?
- Are there any added risks for children in the area?
- How long have remedial activities been ongoing at the sites? What is the current status of those remedial activities?
- Who is responsible for cleanup at the sites?
- Would the contamination impact property values, future development, or traffic in the area?

Almost all of the interviewees wanted to know about the overall remedy for the sites, as well as future investigations and a timeline for eventual cleanup.

B. Outreach and Other Concerns

Interviewees provided the following feedback and suggestions on current and future outreach pertaining to the West Central Phoenix WQARF sites:

- The majority of interviewees stated that they preferred receiving information on the WQARF sites from postal mailings. Email, phone calls, and meetings were referenced as preferred methods of communication by fewer interviewees.
- Many interviewees, noting their limited knowledge about the sites, were concerned that ADEQ has not issued enough mailings, including mailings in Spanish.
- Suggestions for other methods of communication included the following:
 - English and Spanish television and radio announcements,

- Quarterly information materials, and
- Communications through schools and city water bills.
- The majority of interviewees had never attended a CAB meeting. One interviewee suggested that ADEQ send out additional mailings about CAB meetings to generate more community involvement.
- Although 15 of the 17 interviewees claimed they were not very familiar with the WQARF sites, 9 of the 17 interviewees stated that they were adequately informed about the sites. The other 8 interviewees stated that they were not well informed or were only “moderately informed.”
- About half of the interviewees thought that ADEQ had been responsive to their concerns, and they knew whom to contact at ADEQ or where to obtain ADEQ contact information.
- The majority of interviewees did not want to be involved with the site other than to be updated on site activities. Two interviewees indicated they would like to serve on the CAB.

C. Response to Community Issues and Concerns

ADEQ uses the information gathered from community interviews, CAB and public meetings, and direct contact to ensure that future outreach activities and materials are able to address community questions and concerns as well as keep the community informed of WQARF site activities. Additionally, community feedback informs ADEQ outreach practices and allows the communication techniques noted in Chapter 4, Section B to be tailored to the specific needs of the community.

Chapter 4 – Community Involvement Action Plan

In addition to providing the framework for the state to investigate and clean up contaminated sites, the WQARF program also requires that ADEQ involve the community in the cleanup process. The following Community Involvement Action Summary table describes the required community involvement activities by WQARF phase and illustrates where the West Central Phoenix sites are in the WQARF process at the time of writing. This summary is followed by a description of the communications vehicles and techniques available to use. Multiple techniques to communicate with and educate the public may be used throughout the process of remediating the WQARF sites.

A. Community Involvement Action Summary – Required Activities

The following Community Involvement Action Summary table describes the required community involvement actions for the West Central Phoenix WQARF sites and notes what actions have been completed to date.

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Community Involvement Action Summary								
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete				
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex
Preliminary Investigation	Provide owners and operators a copy of the Draft WQARF Site Registry Report for a 15-day comment period prior to publishing a notice in a newspaper announcing the availability of the Draft WQARF Site Registry Report for a 30-day public comment period.	A.R.S. § 49-287.01(C) A.R.S. § 49-289.03(A)(1)	Mailing to owners and operators: - East Grand Avenue, March 1998 - North Canal Plume, May 1998 - North Plume, March 1998 - West Grand Avenue, March 1998 - West Osborn Complex, April 1998 Public notice published in <i>Arizona Republic</i> : - East Grand Avenue, April 1998 - North Canal Plume, June 1998 - North Plume, April 1998 - West Grand Avenue, April 1998 - West Osborn Complex, May 1998	✓	✓	✓	✓	✓
WQARF Registry Listing	Following the listing of a site on the WQARF Registry, ADEQ will: <ul style="list-style-type: none">Establish a preliminary community involvement area (see Chapter 2, Section A) within 90 days of site listing on the WQARF Registry.Provide written notice to the community on hazardous substance contamination in the area, the actual and potential risks and routes of exposure, possible health effects, and the opportunity to join the site mailing list.Identify ADEQ personnel to contact for further information.	A.R.S. § 49-289.02	Notice to community and development of a West Central Phoenix community involvement area, April/May 1998 Notice of West Central Phoenix hazardous substance contamination, April 2000	✓				

³ Dates marked with an asterisk are approximate.

Community Involvement Action Summary									
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete					
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex	
WQARF Registry Listing (continued)	Develop a CIP that establishes a CAB, designates a spokesperson, provides for newsletters with current information about the status of remedial actions at the site, establishes a public document repository location, and provides for schedules of CAB meetings and public meetings. Update the CIP at least every 2 years.	A.R.S. § 49-287.03(D) A.R.S. § 49-289.03(B) A.R.S. § 49-289.03(C) A.A.C. R18-16-404(C)(1)(i) A.A.C. R18-16-404(C)(1)(j) A.A.C. R18-16-404(C)(1)(k) A.A.C. R18-16-404(C)(1)(o)	Original West Central Phoenix CIP, June 2000 Updated West Central Phoenix CIPs, September 2009 and April 2015	✓					
Early Response Action	<p>A work plan shall be prepared for each Early Response Action that will include a description of work to be done, known site conditions, a plan for conducting the work; a description of community involvement activities for the Early Response Action under R18-16-404; and a schedule.</p> <p>Community involvement activities may include development of a community involvement plan under A.A.C. R18-16-404(C) or community involvement activities appropriate to the scope and schedule of the work performed such as a general public notice to those who may be impacted by field work as indicated in A.A.C. R18-16-404(D)(2).</p> <p>If immediate action is necessary to address a current risk to public health or the environment, to protect a source of water, or to provide a supply of water, the work plan and written rationale may be prepared and the community involvement activities may be conducted after commencement of the Early Response Action.</p>	A.A.C. R18-16-404 A.A.C. R18-16-405(D)(2) A.A.C. R18-16-405(E) A.A.C. R18-16-405(G)	Early Response Action activities: - East Grand Avenue, None - North Canal Plume, 2004 and 2006-2007 - North Plume, 2000-2001 - West Grand Avenue, 1990 and 1995-1998 - West Osborn Complex, 1999-2002		✓	✓	✓	✓	

Community Involvement Action Summary									
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete					
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex	
Remedial Investigation ⁴	Provide notice to interested parties announcing the availability of the Remedial Investigation Scope of Work or Work Plan, Fact Sheet, and CIP Outline for review and a 30-day public comment period. Provide notice indicating that any person by agreement with the ADEQ may develop and implement a work plan for the Remedial Investigation and Feasibility Study and solicit information regarding the current and future land and water uses at the site. ⁵ These notices shall also provide an opportunity to request a public meeting.	A.R.S. § 49-287.03(B) A.R.S. § 49-287.03(C) A.A.C. R18-16-301(C) A.A.C. R18-16-403(F) A.A.C. R18-16-403(G) A.A.C. R18-16-404(C)(1)(a) A.A.C. R18-16-406(B) A.A.C. R18-16-406(D)	Combined West Central Phoenix notice, 1998			✓			
	Establish a selection committee to choose CAB members for the site. The selection committee shall consist of the following number of people from each organization: <ul style="list-style-type: none">• ADEQ: 1• Potentially Responsible Party: 1• Local Official : 1• Local Community: 2	A.R.S. § 49-289.03(D)	West Central Phoenix CAB selection committee established, April 2000 and August 2014			✓			
	Establish a CAB of between 5 to 20 members that represent a diversified cross section of the community. Within 90 days of appointment by the CAB selection committee, the CAB shall elect co-chairpersons and develop a charter defining operating procedures, membership terms and obligations, goals for developing issues, concerns and opportunities related to quick cleanup of the site, and any other anticipated activities for identifying and improving the public's access and understanding of information regarding the remediation process at the site.	A.R.S. § 49-289.03(C) A.R.S. § 49-289.03(F)	West Central Phoenix CAB established, June 2000 and October 2014			✓			

⁴ A potentially responsible party search is conducted concurrently with the Remedial Investigation and Feasibility Study, but does not have mandated community involvement activities.

⁵ Data collected from land and water use studies will be incorporated into the Remedial Investigation and/or Remedial Objectives Report per A.A.C. R18-16-406(D)-(I).

Community Involvement Action Summary								
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete				
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex
Remedial Investigation (continued)	Publish a combined ⁶ public notice announcing the availability of the Draft Remedial Investigation Report for review and a minimum 30-day public comment period as well as a public meeting to solicit Remedial Objectives for the site. The public meeting shall be held not less than 45 calendar days and not more than 90 calendar days after release of the Draft Remedial Investigation report, unless ADEQ sets a different date for good cause.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(b) A.A.C. R18-16-406(F) A.A.C. R18-16-406(I)(1) A.A.C. R18-16-406(I)(2)	Public notice and comment: - East Grand Avenue, May 2004 - North Canal Plume, To be determined - North Plume, August 2006 - West Grand Avenue, February 2004 - West Osborn Complex, August 2004 Public meetings: - East Grand Avenue, August 2004 - North Canal Plume, To be determined - North Plume, September 2006 - West Grand Avenue, March 2004 - West Osborn Complex, November 2004	✓		✓	✓	✓

⁶If not combined, separate public notices will be provided for the Draft Remedial Investigation comment period and the Remedial Objectives solicitation and public meeting.

Community Involvement Action Summary								
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete				
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex
Remedial Investigation (continued)	<p>Publish a public notice announcing the availability of the Proposed Remedial Objectives Report for a 30-day public comment period.</p> <p>Publish a public notice of the availability of the Final Remedial Investigation Report, which shall contain the results of site characterization and the Final Remedial Objectives Report. The final Remedial Investigation Report shall be accompanied by responsiveness summaries regarding comments, issues and concerns raised in the community involvement process and, if the report is prepared by a person other than ADEQ, copies of the comments received.</p>	<p>A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(c) A.A.C. R18-16-406(I)(5) A.A.C. R18-16-406(J)</p>	<p>Proposed Remedial Objectives Report public notice and comment:</p> <ul style="list-style-type: none">- East Grand Avenue, January 2006- North Canal Plume, To be determined- North Plume, September 2008- West Grand Avenue, October 2005- West Osborn Complex, April 2005 <p>Final Remedial Investigation Report public notice:</p> <ul style="list-style-type: none">- East Grand Avenue, July 2006- North Canal Plume, To be determined- North Plume, January 2009- West Grand Avenue, 2004- West Osborn Complex, July 2005	✓		✓	✓	✓

Community Involvement Action Summary								
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete				
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex
Feasibility Study	Provide notice to interested parties announcing the availability of the Feasibility Study Work Plan* <i>Although not mandated, ADEQ will also provide public notice upon completion of the Feasibility Study.</i>	A.A.C. R18-16-404(C)(1)(d) A.A.C. R18-16-407(B)	Feasibility Study Work Plan public notice: - East Grand Avenue, October 2, 2014 - North Canal Plume, To be determined - North Plume, February 2013 - West Grand Avenue, April 2, 2013 - West Osborn Complex, June 2005 Feasibility Study public notice: - East Grand Avenue, To be determined - North Canal Plume, To be determined - North Plume, June 11, 2015 - West Grand Avenue, June 2013 - West Osborn Complex: -Shallow Groundwater System, January 2012 -Lower Sand and Gravel Subunit System, May 2012	✓ (partially complete)		✓ (partially complete)	✓	✓

Community Involvement Action Summary								
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete				
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex
Proposed Remedial Action Plan	Publish a public notice announcing the availability of the Proposed Remedial Action Plan for a 30-day public comment period. Mail the same notice to interested parties. The notice will describe the proposed remedy and its estimated cost and identify where the Proposed Remedial Action Plan, Remedial Investigation, and Feasibility Study Reports may be inspected.	A.R.S. § 49-287.04(B) A.R.S. § 49-289.03(A)(2) A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(e) A.A.C. R18-16-408(A)	Proposed Remedial Action Plan public notice: - East Grand Avenue, To be determined - North Canal Plume, To be determined - North Plume, To be determined - West Grand Avenue, To be determined - West Osborn Complex: -Shallow Groundwater System, August 2013 -Lower Sand and Gravel Subunit System, August 2013					✓
Record of Decision	Publish a public notice announcing the availability of the Record of Decision and Responsiveness Summary for review.	A.R.S. § 49-287.04(G) A.A.C. R18-16-404(C)(1)(f) A.A.C. R18-16-410						
Implementation of Remedy (Remedial Actions)	Publish a public notice announcing a request for ADEQ to approve remedial actions at the site. The notice will provide the opportunity for a 30-day public comment period.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(h) A.A.C. R18-16-413						
	Provide notice to the public and interested parties of a request for ADEQ to waive a regulatory requirement (permit) to complete remedial actions.	A.R.S. § 49-290 A.A.C. R18-16-404(C)(1)(l)						
	Provide notice to the public that fieldwork conducted to remove contaminants of concern may result in noise, light, odor, dust or other adverse impacts.	A.A.C. R18-16-404(C)(1)(m)						

Community Involvement Action Summary								
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete				
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex
Implementation of Remedy (Remedial Actions) (continued)	Provide notice to the public of a request for ADEQ to determine whether each of the Remedial Objectives for a site have been satisfied and will continue to be satisfied. The notice will provide the opportunity for a 30-day public comment period on the request.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(n) A.A.C. R18-16-416(B)						
Operation & Maintenance	Publish a public notice announcing the availability of the Operation & Maintenance Plan for review and a 30-day public comment period. Mail the same notice to interested parties.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(g) A.A.C. R18-16-411(E)						
Removal from Registry	<i>Although not mandated by Arizona statute or administrative code, ADEQ may publish a public notice upon the removal of the site from the WQARF Registry.</i>	Not applicable						

Community Involvement Action Summary								
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete				
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex
Any Phase	Publish a public notice announcing a request to ADEQ for a prospective purchaser agreement. The notice will provide the opportunity for a 30-day public comment period.		<p>East Grand Avenue:</p> <ul style="list-style-type: none">- One prospective purchaser agreement notice was published in February 2002 (see Appendix E). <p>North Canal Plume:</p> <ul style="list-style-type: none">- No prospective purchaser agreement requests have been submitted to date. <p>North Plume:</p> <ul style="list-style-type: none">- 2 prospective purchaser agreement notices were published September 2012. <p>West Grand Avenue:</p> <ul style="list-style-type: none">- No prospective purchaser agreement requests have been submitted to date. <p>West Osborn Complex:</p> <ul style="list-style-type: none">- No prospective purchaser agreement requests have been submitted to date.	✓		✓		

Community Involvement Action Summary								
WQARF Phase	Mandated ADEQ Community Involvement Activity (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date ³	Complete				
				East Grand Avenue	North Canal Plume	North Plume	West Grand Avenue	West Osborn Complex
Any Phase	Publish a public notice announcing the intention of ADEQ to enter into a settlement agreement with a responsible party. The notice will provide the opportunity for a 30-day public comment period.	A.R.S. § 49-289.03(A)(4) A.A.C. R18-16-301(C)	East Grand Avenue: - No settlement agreement requests have been submitted to date. North Canal Plume: - No settlement agreement requests have been submitted to date. North Plume: - Two consent decree settlement notices were published; one in 1993 and one in 1999 (see Appendix F). West Grand Avenue: - No settlement agreement requests have been submitted to date. West Osborn Complex: - Three consent decree settlement notices were published; one in 1992 and two in 1996 (see Appendix F).			✓		✓

B. Community Involvement Action Summary – Communication Techniques

There are required communications activities for every phase of the WQARF process as previously described in the Community Involvement Action Summary table. This section describes the specific activities and resources that ADEQ uses and has available to communicate with, educate, and help the community and stakeholders be actively involved in the West Central Phoenix WQARF sites.

ADEQ will continue to use the following resources to keep stakeholders informed throughout the process:

1. **CAB** – The CAB has been conducting public meetings about the West Central Phoenix WQARF site with ADEQ’s assistance since June 2000. CAB members advise ADEQ on appropriate means of delivering site information as well as provide input regarding content. CAB members also serve as an information resource for their community. CAB meetings are held at a location and date mutually agreed upon by the CAB members and an ADEQ representative. Care is taken to ensure that the location is easily accessible for the public to attend. For a list of current CAB members, see Appendix D.
2. **Local Print Media** – ADEQ will publish all WQARF milestone public notices in the *Arizona Business Gazette*, which has a search function for public notices (<http://archive.azcentral.com/class/azbjnotices.html>). For a list of other media outlets, see Appendix G.
3. **U.S. Mail and Email Lists** – ADEQ creates, maintains, and updates U.S. Mail and email address lists for each of the West Central Phoenix WQARF sites. These contact lists include CAB members, local elected and appointed officials, neighborhood and home owner association contacts, schools and vulnerable population centers representing/located within the sites’ community involvement areas (see Appendices B through D), and other interested parties. ADEQ updates these site contact lists on an ongoing basis using site-specific return mailers from fact sheets, attendance lists from CAB meetings, open houses, and public meetings, individual requests, and when CIPs are revised.
4. **ADEQ Website** – ADEQ’s website provides visitors with three areas of information related to the site and is updated on an ongoing basis:
 - **Calendar Page** – This calendar provides information regarding public meetings (including CAB meetings), notices, and public comment periods (<http://www.azdeq.gov/cgi-bin/vertical.pl>).
 - **CAB Meetings Page** – This page provides links to announcements, agendas, and minutes of CAB meetings (<http://www.azdeq.gov/environ/waste/sps/reg.html>).
 - **Site Information Pages** – These pages provide detailed site information and access to the online information repositories for the sites, which includes milestone documents.

- http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_East_Gr_and_Avenue.htm
- http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_North_Canal_Plume.html
- http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_North_Plume.html
- http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_West_Gr_and_Avenue.html
- http://www.azdeq.gov/environ/waste/sps/West_Central_Phoenix_West_Osborn_Complex.html

5. **ADEQ Notice Board** – Notice boards are located in ADEQ’s Phoenix and Tucson offices.
6. **Public Meetings** – Public meetings or open houses, beyond the CAB meetings, may be scheduled and conducted as needed and as determined by ADEQ and the CAB (for example, meetings with neighborhood/homeowners associations, schools, or other community groups).
7. **Site Tours** – Tours of the sites can be requested and arranged in conjunction with the property owners and in compliance with current laws and regulations by contacting the ADEQ Community Involvement Coordinator.

The following Communication Techniques table illustrates how these techniques have and will be used throughout the WQARF process for the West Central Phoenix WQARF sites.

Communication Techniques							
Communications Deliverable			Communications Recipients/Methods				
Type ⁷	Why	When	CAB Members	Interested Parties List	ADEQ Website	Local Print Media	ADEQ Notice Board
Notice	Provide notice of availability of milestone documents, request comments, and solicit input.	Per mandate (see Community Involvement Action Summary table).	✓	✓	✓ (Site and calendar pages)	✓ (<i>Arizona Business Gazette</i>)	✓
CAB Meeting Notice/Agenda	Provide two-way communication about the status of site activities. The notice announces the meeting and provides the agenda.	Variable schedule based on level of site activity as scheduled by CAB and ADEQ, with the exception of the required public meeting for the solicitation of remedial objectives (see Community Involvement Action Summary table).	✓	✓	✓ (Site, calendar, and CAB meetings pages)	Not applicable	✓
Technical Presentation	Provide current information about site activity or related topics.	At CAB meetings or at specially requested public meetings.	✓	Not applicable	✓ (Site and CAB meetings pages)	Not applicable	Not applicable
Technical Milestone Document	Provide current technical information about site investigation/remediation activities (e.g., Remedial Investigation, Feasibility Study, etc.).	According to the WQARF Process as documents are developed and become available.	✓	Not applicable	✓ (Online information repository)	Not applicable	Not applicable
Site Fact Sheet/Newsletter	Provide current information about site activity.	Published at the start of the Remedial Investigation and at specific milestones or other times as deemed appropriate by ADEQ and the CAB.	✓	✓	✓ (Online information repository)	Not applicable	Not applicable
Public Meeting	Provide forum to solicit Remedial Objectives. (Note that this meeting may be conducted in conjunction with a CAB meeting.) Additional public meetings may be used to discuss site activities as determined by level of community interest.	As required/if requested.	✓	✓	✓ (Site and calendar pages)	✓ (<i>Arizona Business Gazette</i>)	✓
Site Tour	Provide walking or driving tour of the site to observe current site conditions and the surrounding community and environment.	If requested, and with cooperation of current property owners.	Contact ADEQ Community Involvement Coordinator.				

⁷ Communications deliverables may be translated into Spanish if deemed necessary or requested.

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C. Other Resources and Contacts

In addition to the designated spokesperson and information repository identified at the beginning of this CIP, the appendices included in this CIP provide additional resources and contact information for the public to use as desired.

- **Appendix A** provides a history of major activities by year at the West Central Phoenix WQARF sites.
- **Appendix B** provides a list of targeted communities in the West Central Phoenix WQARF sites community involvement area. These include neighborhood associations and community schools and vulnerable population centers that fall within the community involvement area.
- **Appendix C** provides a table of local and state elected officials, by ward or district, who represent communities within the community involvement area. Note that some wards or districts may encompass more of the community involvement area than others.
- **Appendix D** provides a table of the current West Central Phoenix WQARF sites CAB members.
- **Appendix E** provides a list of parties that have requested, and received, from ADEQ prospective purchaser agreements for property in and around the West Central Phoenix WQARF sites.
- **Appendix F** provides a list of parties that have consent decree settlements with ADEQ pertaining to the West Central Phoenix WQARF sites.
- **Appendix G** provides a list of media outlets in the area. All future public notices for the West Central Phoenix WQARF sites can be found by searching the *Arizona Business Gazette* publication (<http://archive.azcentral.com/class/azbjnotices.html>).
- **Appendix H** provides a list of other related state and local agencies that may be of interest to the public.

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Appendix A – Site Histories

The following presents site histories in chronological order for the Arizona Department of Environmental Quality (ADEQ) West Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites.

West Central Phoenix—East Grand Avenue

1957–1970 Van Waters and Rogers (VW&R) operated near 27th Avenue and Osborn Road. Operations included warehousing and distribution of industrial, agricultural chemical products, upholstery supplies, and laundry and dry cleaning supplies. VW&R operations were the primary source of contamination at the East Grand Avenue WQARF site.

1982–1989 In July 1982, volatile organic compounds (VOCs) were first detected in the groundwater in the West Central Phoenix area. The City of Phoenix detected trichloroethene (TCE) in four municipal public supply wells (Wells 70, 71, 151, and 152). The Arizona Department of Health Services, Salt River Project, and City of Phoenix confirmed the presence of VOCs in the groundwater with sampling conducted in 1983, 1985, and 1986. Groundwater from City of Phoenix Wells 70 and 71 contained the highest concentrations of TCE and, therefore, were immediately shut down. Wells 151 and 152 were monitored for VOC concentrations from 1982 until 1989. As a result of sampling conducted in February 1989, the City of Phoenix elected to take Wells 151 and 152 off line on March 7, 1989.


In 1987, the West Central Phoenix area was designated a WQARF Priority List site.

1993–2002 Remedial Investigation field activities were conducted between 1993 and 2002.

In 1997, ADEQ established the WQARF Registry, which replaced the Priority List. The East Grand Avenue site was placed on the WQARF Registry in April 1998 with a score of 26 out of a possible 120. The site score was reevaluated in 2000 and revised to 31 out of 120.


In January 2002, ADEQ entered into an agreement with Univar USA, Inc. (Univar), the parent company of VW&R, to conduct groundwater quality monitoring and a Feasibility Study.

2003 Univar began conducting groundwater monitoring in March. Univar also installed a soil vapor extraction (SVE) system at the former VW&R facility to clean up contaminated soils.

2004	In January, Univar's SVE system became operational. In May ADEQ issued the Draft Remedial Investigation Report, which focused on the former VW&R facility.	 <p>SVE System at Univar</p>
2006	ADEQ issued the Proposed Remedial Objectives Report for public comment in January and the Final Remedial Objectives Report in June. In July ADEQ issued the Final Remedial Investigation report for the site.	
2007	The total quantity of VOCs removed from the soil by the SVE system during 2007 was approximately 990 pounds (80 gallons).	
2008	Two ADEQ monitoring wells located in a City of Phoenix right-of-way were added to the SVE system to increase the capture of VOCs.	
2009	The SVE system continued to extract VOCs from the soils below the former VW&R facility, removing approximately 4 pounds of VOCs in the first 9 months of 2009. Groundwater sampling was conducted twice in 2009.	
2010	The SVE system removed a monthly average of 2.5 pounds of VOCs from the soils below the former VW&R facility. Groundwater sampling was conducted twice in 2010.	
2011	The SVE system removed a monthly average of 1.4 pounds of VOCs. Groundwater sampling was conducted twice in 2011.	
2012	The SVE system removed a monthly average of 1 pound of VOCs. Groundwater sampling was conducted once in 2012.	
2013	In September, Univar shut down the SVE system due to insufficient return of VOCs. Groundwater sampling was conducted twice in 2013.	
2014	Groundwater sampling was conducted twice in 2014.	

West Central Phoenix—North Canal Plume

- 1952—1973 Southwest Metal Industries, Inc. (Southwest Metal) operated near 36th Avenue and Clarendon Avenue from 1952 to 1973. Operations included constructing sand casts to form magnesium, aluminum, and brass castings. ADEQ has identified Southwest Metal as a source of contamination at the North Canal Plume WQARF site.
- 1956—1984 Osborn Products, Inc. (Osborn Products) operated near 36th Avenue and Clarendon Avenue from 1956 to 1984. Operations included chrome plating, degreasing metal parts, and machining parts to specification for the aerospace industry. ADEQ has identified Osborn Products as a source of contamination at the North Canal Plume WQARF site.
- 1963—2013 Precise Metal Products Co. (Precise) and four subsidiaries, Paraflex Machine & Tool Co. (Paraflex), Precision Marking Co., Paint Spray, Inc., and Perigee Metal Spinning Co., all operated at a facility near 39th Avenue and Clarendon Avenue from 1963 to 2013. Operations included metal fabrication, machining, and finishing for the aerospace, aircraft, and medical sectors. ADEQ has identified Precise and its subsidiaries as sources of contamination at the North Canal Plume WQARF site.
- 1977—1989 Magic Metals Custom Plating (Magic Metals) operated near 36th Avenue and Whitton Avenue from 1977 to 1989. Operations included electroplating for automobiles, custom restorations, industrial parts, and antiques. ADEQ has identified Magic Metals as a source of contamination at the North Canal Plume WQARF site.
- 1982—1989 In July 1982, VOCs were first detected in groundwater in the West Central Phoenix area. The City of Phoenix detected TCE in four municipal public supply wells (Wells 70, 71, 151, and 152). The Arizona Department of Health Services, Salt River Project, and City of Phoenix confirmed the presence of VOCs in the groundwater with sampling conducted in 1983, 1985, and 1986. Groundwater from City of Phoenix Wells 70 and 71 contained the highest concentrations of TCE and were immediately shut down. Wells 151 and 152 were monitored for VOC concentrations from 1982 until 1989. Based on the results of sampling conducted in February 1989, the City of Phoenix elected to take Wells 151 and 152 off-line on March 7, 1989.
- 1987—2000 In 1987, the West Central Phoenix area was designated a WQARF Priority List site. In 1997, ADEQ established the WQARF Registry, which replaced the Priority List. The North Canal Plume site was placed on the WQARF Registry in June 1998 with a score of 22 out of a possible 120. The site was reevaluated in 2000 and given a revised score of 27 out of 120.

- 2004 In September, an Early Response Action Evaluation Report was prepared for ADEQ. The evaluation examined limited soil, soil gas, and groundwater samples from Osborn Products, Magic Metals, Precise/Paraflex, and Southwest Metal. Additional investigation was recommended for each site.
- 2005 In August, ADEQ issued an Interim Remedial Investigation Report documenting environmental investigation activities at the WQARF site.
- 2006 In October, a second Early Response Action Evaluation Report was prepared for ADEQ. The evaluation examined limited soil, soil gas, and groundwater samples from Pyramid Industries, Giltspur Exhibits, Triad Trucking Company, Redburn Tire Company, Osborn Products, and Southwest Metal. Additional investigation was recommended for some of the facilities.
- 

Drilling Monitoring Well
- 2007 In September, an aquifer test was carried out at the former Southwest Metal facility to help determine potential groundwater treatment options for the regional groundwater plume. Additionally, ADEQ conducted an SVE pilot test in February at the former Osborn Products facility. Based on the concentrations from the pilot test, the results did not merit a soil remediation system.
- 2008 Soil vapor samples were taken across two areas at the site to aid in the placement of new monitoring wells.
- 2009 Work on the Draft Remedial Investigation Report continued with the collection of information needed to compile a Land and Water Use Report. Questionnaires were sent to stakeholders, property owners, and water providers.
- 2013 Groundwater monitoring and sampling was conducted. Depth to water was measured in each well, and groundwater samples were collected and analyzed for VOCs, chlorinated hydrocarbons, and total chromium. Results indicated that the groundwater contaminant plume could be moving in a southern direction. The ADEQ Underground Storage Tank (UST) Program, State Lead Unit, installed 26 wells and an SVE/air sparge (AS) remediation system at the former Triad Trucking property at 3883/4015 North 36th Avenue.
- 2014 In February, ADEQ conducted groundwater sampling. In May and June, ADEQ monitored groundwater levels to study the effects of the pumping of Salt River Project wells. ADEQ also conducted a passive soil gas survey along 33rd Avenue.

The ADEQ UST Program, State Lead Unit, shut down the SVE/AS remediation system to test for contaminant rebound. Data indicated that TCE concentrations in the vicinity of the former Triad Trucking property declined and that the plume could be moving in a southern direction. Additionally, pumping of the Salt River Project wells appeared to affect water levels.

West Central Phoenix—North Plume

- 1967–2011 F&B Mfg. Co. (F&B) operated near 39th Avenue and Montecito Avenue from 1967 to 2011. F&B manufactured metal aircraft and spacecraft parts, and performed sheet metal forming and assembly. PCE was known to be used as a degreasing solvent at the facility until approximately October 1987, when the degreasing solvent was changed to 1,1,1-trichloroethane (TCA). In April 1991 ADEQ discovered that PCE had leaked from F&B's degreaser into the soil under the building. ADEQ has identified F&B as a source of contamination at the North Plume WQARF site.
- 1969–Present Hill Brothers Chemical Company (Hill Brothers) has operated near 42nd Avenue and Turney Avenue from 1969 to the present. The Hill Brothers facility is a chemical distribution facility. Chemicals including acids, bases, solvents, chlorine, and concrete additives are stored in on-site aboveground storage tanks prior to transfer into containers for distribution. ADEQ has identified Hill Brothers as a source of contamination at the North Plume WQARF site.
- 1977–1994 Pyramid Industries, Inc. (Pyramid) operated near 39th Avenue and Montecito Avenue, across from the F&B facility, from 1977 to 1994. Pyramid manufactured telephone and television cable riser boxes. Operations at the facility required the use of acids, caustics, heavy metals, paints, and methylene chloride. Several suspected sources of contamination have been identified at the Pyramid facility, including the loading dock/dry well, paint room, and former hook cleaning areas. ADEQ has identified Pyramid as a source of contamination at the North Plume WQARF site.
- 1982–1989 In July 1982, VOCs were first detected in the groundwater in the West Central Phoenix area. The City of Phoenix detected TCE in four municipal public supply wells (Wells 70, 71, 151, and 152). The Arizona Department of Health Services, Salt River Project, and City of Phoenix confirmed the presence of VOCs in the groundwater with sampling conducted in 1983, 1985, and 1986. Groundwater from City of Phoenix Wells 70 and 71 contained the highest concentrations of TCE and were immediately shut down. Wells 151 and 152 were monitored for VOC concentrations from 1982 until 1989. Based on the results of sampling conducted in February 1989, the City of Phoenix elected to take Wells 151 and 152 off-line on March 7, 1989.

- 1982–1993 The former Rinchem Company, Inc. (Rinchem) facility operated near 41st Avenue and Turney Avenue. Rinchem operated a chemical warehouse and distribution facility that handled solvents, oils, and fuels. Several suspected sources of contamination were identified at the Rinchem facility, including the former repackaging area and tank farm. ADEQ has identified Rinchem as a source of contamination at the North Plume WQARF site.
- 1987 The West Central Phoenix area was designated a WQARF Priority List site.
- 1992 ADEQ entered into a consent decree with F&B to conduct a Remedial Investigation/Feasibility Study; remediate on-site, PCE-contaminated soil; reimburse past ADEQ costs; and pay oversight costs.
- 1995–1998 F&B was financially unable to fulfill the requirements of the consent decree.
- 1997–1998 In 1997, ADEQ established the WQARF Registry, which replaced the WQARF Priority List. In April 1998 the North Plume site was placed on the WQARF Registry with a score of 50 out of a possible 120. The site was reevaluated in 2000 and given a revised score of 55 out of 120.
- 1998–1999 ADEQ and F&B negotiated a new consent decree, which was approved by the U.S. District Court in August 1999. Under the new consent decree, ADEQ would complete the Remedial Investigation/Feasibility Study and conduct remediation effort at the facility. In 1999 ADEQ and F&B entered into a financial hardship consent decree in federal court. F&B was required to make annual payments for a period of time in amounts calculated as a percentage of net sales.
- 2000–2001 ADEQ removed approximately 210 cubic yards of soil beneath the F&B vapor degreaser during excavations in July 2000 and September 2001.
- 2001–2006 ADEQ operated an SVE system at the F&B facility beginning in August 2001 to further remediate PCE contamination beneath the vapor degreaser. As of December 2006, over 41,000 pounds of PCE had been removed from the source area by the SVE system.
- 2006 In August, ADEQ issued the Draft Remedial Investigation Report. Groundwater samples and water level measurements were collected in September.



SVE System at F&B Facility

- 2007 ADEQ had a groundwater risk model developed with information available from the former Rinchem facility. Based upon the results of the model, ADEQ determined that the concentrations of VOCs in the soil did not merit the placement of a remedial system.
- 2008 Three new wells were installed at the site. One well was the result of a prospective purchaser agreement with the State of Arizona. In a public benefit arrangement, the new well was installed in the western portion of the project area. The other two wells were installed in an effort to evaluate the potential to capture and treat contaminated groundwater.
- Hill Brothers installed an SVE treatment system at its facility to remediate potentially contaminated soils.
- 2009 The SVE treatment systems continued to remove VOCs from the soil and prevent the VOCs from becoming potential contaminants in the groundwater at the site.
- 2010 The SVE system at F&B was shut down during the first quarter of 2010 because of high moisture content in the air stream. The system was restarted in April. The SVE system at Hill Brothers was shut down and dismantled. ADEQ granted a No Further Action request pursuant to Arizona Revised Statutes (A.R.S.) § 49-287.01 for soils underlying the Hill Brothers facility.
- 2011–2012 The SVE system at F&B was shut down in February of 2011 and 2012 because of high moisture content in the air stream. The system was restarted in April of both years.
- 2013 Three new SVE wells were installed and connected to the existing SVE system at F&B. This SVE system was shut down at the end of January because of high moisture content in the air stream. The system was restarted at the end of April. Groundwater monitoring and sampling was conducted in March and September. Groundwater elevations were measured in June and December.



SVE System at Hill Brothers Facility

2014 The F&B SVE system was shut down at the end of December due to high moisture content in the air stream. The system was restarted at the end of March. The SVE system was modified in June to more efficiently remove moisture from the air stream and to allow the system to operate year round. The granular activated carbon filters were changed out in June. Groundwater monitoring and sampling was conducted in March, and groundwater elevations were measured in June.

West Central Phoenix—West Grand Avenue

1967–Present Layke, Inc. (Layke) has operated near 33rd Avenue and Osborn Road from 1967 to the present. Operations have included the manufacture of various metal parts. TCE was the primary solvent used for parts cleaning/degreasing, and a vapor degreaser was used at the facility from 1969 to approximately 1989. Used chemicals were stored in 55-gallon drums in the waste storage area or in a UST prior to disposal. At various times the UST apparently overflowed, causing the waste inside the tank to leak. ADEQ has identified Layke as the primary source of contamination at the West Grand Avenue WQARF site.

1982–1989 In July 1982, VOCs were first detected in the groundwater in the West Central Phoenix area. The City of Phoenix detected TCE in four municipal public supply wells (Wells 70, 71, 151, and 152). The Arizona Department of Health Services, Salt River Project, and City of Phoenix confirmed the presence of VOCs in the groundwater with sampling conducted in 1983, 1985, and 1986. Groundwater from City of Phoenix Wells 70 and 71 contained the highest concentrations of TCE and were immediately shut down. Wells 151 and 152 were monitored for VOC concentrations from 1982 until 1989. As a result of sampling conducted in February 1989, the City of Phoenix elected to take Wells 151 and 152 off-line on March 7, 1989.

1987 The West Central Phoenix area was designated a WQARF Priority List site.

1990–1998 An Early Response Action was conducted by Layke. In October 1990, Layke excavated a waste oil UST that was contaminated with TCE. Soil samples were collected. After the tank was excavated, an SVE system was installed and operated from March 1995 through June 1998 to remediate the contamination beneath the UST.

1997–2000 ADEQ established the WQARF Registry, which replaced the



UST Removal at Layke Facility

WQARF Priority List. The West Grand Avenue site was placed on the WQARF Registry in April 1998 with a score of 17 out of a possible 120. The site was reevaluated in 2000 and given a revised score of 22 out of 120.

2001–2002 Between 2001 and 2002, soil samples were collected by ADEQ in the area of the UST to determine the effectiveness of the SVE system. The soil data indicated that the contamination had been effectively remediated by the SVE system. Based on this information, ADEQ granted a No Further Action request for soil in December 2002 pursuant to A.R.S. § 49-287.01.



SVE System at Layke Facility

2004 In February, ADEQ issued a Draft Remedial Investigation Report for public comment. No comments were received during the 30-day comment period. The report was accepted as the Final Remedial Investigation Report. ADEQ received a request from Layke in April to permanently shut down the SVE system. ADEQ granted the request in a letter dated April 21, 2004.

2005 In October, ADEQ issued the Proposed Remedial Objectives Report for public comment.

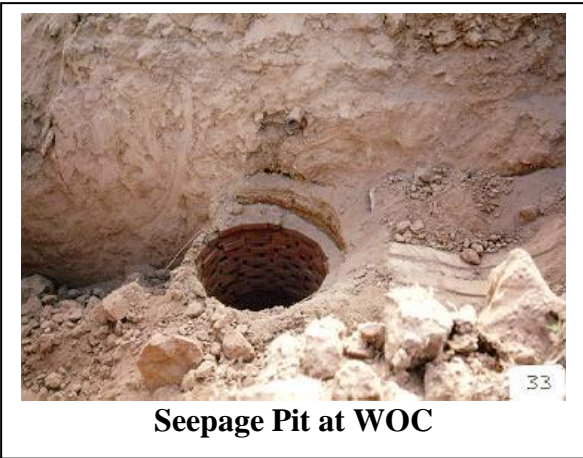
2007 ADEQ began the process of finalizing the Proposed Remedial Objectives Report.

2008 Because of a decline in groundwater levels, the West Grand Avenue groundwater monitoring wells went dry, so a new groundwater monitoring well, WCP-235, was installed at the site.

Additional soil sampling indicated that the contaminated soils had been remediated.

2012–2013 Groundwater sampling was conducted in October 2012 and January 2013. No contaminants were detected at concentrations greater than the Arizona Aquifer Water Quality Standards (AWQS). The Feasibility Study Report was completed in June 2013 and recommended no action as the contaminant concentrations were below AWQS limits and were trending downward.

West Central Phoenix—West Osborn Complex

- 1950–1970 The West Osborn Complex (WOC) facility was originally one large property (about 15 acres) located near 35th Avenue and Osborn Road. From the late 1950s to the mid-1970s, companies at the property manufactured electronic components. These businesses used TCE and other chemicals in the production and cleaning process. Large quantities of TCE and other wastes were disposed of in septic tanks and seepage pits at the WOC property from the late 1950s until the late 1960s. TCE may also have been dumped onto the ground surface.
- 
- Seepage Pit at WOC**
- 1982–1989 In July 1982, VOCs were first detected in the groundwater in the West Central Phoenix area. The City of Phoenix detected TCE in four municipal public supply wells (Wells 70, 71, 151, and 152). The Arizona Department of Health Services, Salt River Project, and City of Phoenix confirmed the presence of VOCs in the groundwater with sampling conducted in 1983, 1985, and 1986. Groundwater from City of Phoenix Wells 70 and 71 contained the highest concentrations of TCE and were immediately shut down. Wells 151 and 152 were monitored for VOC concentrations from 1982 until 1989. Based on the results of sampling conducted in February 1989, the City of Phoenix elected to take Wells 151 and 152 off-line on March 7, 1989.
- 1987 The West Central Phoenix area was designated a WQARF Priority List site.
- 1996 United Industrial Corporation (United), one of the parties responsible for contamination at the WOC, and ADEQ entered into a consent decree in U.S. District Court, in which United agreed to conduct the Remedial Investigation and Feasibility Study for the site and to pay ADEQ past and future oversight costs.
- 1997–1998 ADEQ established the WQARF Registry, which replaced the WQARF Priority List. The WOC site was placed on the WQARF Registry with a score of 47 out of a possible 120.
- 1999–2002 United operated an SVE system from August 1999 through October 2002 to remediate TCE contaminated soil beneath the WOC property.
- 2004 United completed the soil cleanup at the property and permanently shut down the SVE system in March. In July, United abandoned a WOC irrigation well that was

thought to be acting as a conduit from the upper to the lower aquifer and leading to the contamination found in the lower aquifer at the WOC. In August ADEQ issued the Draft Remedial Investigation Report. A Community Advisory Board meeting was held in November to discuss the Draft Remedial Investigation Report and obtain input on remedial objectives for the site.

- 2005 In April, ADEQ issued the Proposed Remedial Objectives Report. Comments were received from the public, and ADEQ issued the Final Remedial Objectives Report in May. In June ADEQ approved United's Feasibility Study Work Plan. United installed five additional monitoring wells as part of the Feasibility Study. In July a notice was issued to the public indicating the availability of the Final Remedial Investigation Report, which incorporated the Final Remedial Objectives Report. In August a groundwater report was submitted to ADEQ documenting the installation and sampling of the new monitoring wells.
- 2006 United conducted the Feasibility Study to evaluate specific remedial measures and strategies required to meet the remedial objectives for groundwater. In June, as part of the Feasibility Study, United installed additional monitoring wells to further define the extent of shallow groundwater contamination emanating from the WOC property. These new wells showed concentrations of TCE above the AWQS limit of 5.0 micrograms per liter.
- 2007 ADEQ and United agreed that the deep aquifer and the shallow aquifer needed to be further characterized and remediated separately because recent sampling had indicated that the shallow groundwater plume had migrated further south than anticipated. The two plumes became known as the shallow groundwater system plume and the lower sand and gravel subunit system plume. An addendum to the Feasibility Study Work Plan for the placement of new groundwater monitoring wells was approved by ADEQ in August. Drilling activities were initiated in September. Results from these wells were incorporated into the Feasibility Study for the shallow groundwater system plume.
- 2008–2011 United, which was bought by Textron Systems Corporation in 2007, continued to monitor groundwater quality at the site in both the shallow and deep contaminated aquifers below the former WOC facility. Monitoring wells in both the shallow and deep aquifers were sampled twice each year.
- 2012 In January, ADEQ approved the Feasibility Study Report for the shallow groundwater system plume. In May, ADEQ approved the Feasibility Study Report for the lower sand and gravel subunit.
- 2013 ADEQ completed Proposed Remedial Action Plans for the shallow groundwater system plume and the lower sand and gravel subunit plume. The proposed remedial action for the shallow groundwater system plume was the pumping and treating of groundwater in conjunction with monitored natural attenuation. The proposed remedial action for the lower sand and gravel subunit was monitored

natural attenuation. ADEQ monitored and sampled monitoring wells in the deep aquifer in April and in the shallow and deep aquifers in October.

2014

ADEQ modified the Proposed Remedial Action Plans to address public comments and updated the documents based on the most recent groundwater sampling data. In March ADEQ monitored and sampled monitoring wells in the shallow and deep aquifers, and in May ADEQ conducted vertical profiling in three deep aquifer wells. In June ADEQ conducted limited rehabilitation activities at City of Phoenix Wells COP-70 and COP-71.

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Appendix B – Targeted Communities

A. Neighborhood Associations

The following presents Phoenix registered neighborhood associations and their respective points of contact in the West Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites community involvement area:¹

Amigos Block Watch (602) 573-7754
Dolores Rios Herrera, 2516 North 50th Lane, amigosblockwatch@yahoo.com
Phoenix, AZ 85035

Amistad Neighborhood Association (602) 455-6605
Silvia Salas, 4026 West Granada Road, Phoenix, AZ 85009 sls_slv@yahoo.com

Andalucia Neighborhood Association (623) 247-0574
Jerry Joaquin, 4142 North 47th Avenue, Phoenix, AZ 85031 No email provided

Ashland Encanto Estates 3 Neighborhood Association (602) 262-7125
Kathy Cale, 1924 West Ashland Avenue, Phoenix, AZ 85009 kathycal@gmail.com

Cactus Park 91 Business Alliance (602) 864-7860
Walt Camping, 4427 North 27th Avenue, wcamping@campingcompanies.com
Phoenix, AZ 85017

Carl Hayden Community Center (602) 269-2578
Renato Ramos, 3216 West Van Buren Street, Phoenix, AZ 85009 No email provided

Cordova Neighborhood Association (602) 999-5733
Larry Fallis, 2720 West Solano Drive, Phoenix, AZ 85017 cordova.neighborhood@gmail.com

Flores Y Detalles (602) 484-4115
Cecilia Guerra, 3449 North 39th Avenue, Phoenix, AZ 85019 No email provided

Granada Neighborhood Association (602) 882-1348
Frank Ivenz II, 4408 North 34th Drive, Phoenix, AZ 85017 No email provided

Lynnwood Apartments (623) 247-1717
Debra Gallardo, 6231 West McDowell Road, debbieg@villa.phxcocmail.com
Phoenix, AZ 85035

Marivue Neighborhood Association (623) 245-0671
Tawni Casteel, PO Box 14247, Phoenix, AZ 85063 No email provided

¹ The City of Phoenix Neighborhood Associations website did not provide address information for all neighborhood association contacts.

A. Neighborhood Associations (Continued)

Marivue Park

Norma Veach, 5637 West Earll Drive, Phoenix, AZ 85031

(623) 247-7300

nveach3811@aol.com

Maryvale Community and Commercial Alliance

Meyer Turken, No address provided

(602) 272-6001

meyer@turken.com

Maryvale Revitalization Corporation

Dwight Amery, 3454 North 51st Avenue, Suite 130,
Phoenix, AZ 85031

(623) 848-2795

dwight@maryvalerevitalization.com

Maryvale U.N.I.T.E.

Dwight Amery, 5666 W. Pierson Street, Phoenix, AZ 85031

(602) 284-4077

mvunite@hotmail.com

McKinley Block Watch

Delores Joya, 3001 West McKinley Street, Phoenix, AZ 85009

(602) 272-4459

No email provided

North 58th Ave. Block Watch

Bill Truett, 2229 N. 58th Avenue, Phoenix, AZ 85035

(602) 803-1335

wfruett@gmail.com

Northwest Homesites Association and Block Watch

Jose Villela, 3320 West Holly Street, Phoenix, AZ 85009

(623) 204-2221

josevillela@gmail.com

Our Neighborhood Block Watch

Gerald and Helen Robnett, 3317 North 40th Avenue, Phoenix, AZ 85019

(602) 278-4355

grobnett@cox.net

P.R.I.D.E., Inc.

Ms. Barbara Keene, PO Box 14091, Phoenix, AZ 85063

(602) 213-4738

No email address provided

Safe Haven, Inc.

Melody Cabrera, 2345 West Buckeye Road, Phoenix, AZ 85009

(602) 339-7844

cabrera@consulting@cox.net

U.P.E.M. (Unidos Padres, Estudiantes Y Maestros)

Silvia Salas, 4026 West Granada Road, Phoenix, AZ 85009

(602) 455-6605

sls_slv@yahoo.com

West Phoenix Stars

Stephen E. Ramer, 5717 West Indianola Avenue, Phoenix, AZ 85031

(623) 247-5519

No email provided

B. Community Schools

The West Central Phoenix WQARF sites community involvement area is within the Alhambra Elementary School District, Isaac Elementary School District, and Phoenix Union High School District. The following list presents the community schools in the West Central Phoenix WQARF sites community involvement area:

Alhambra Elementary School District

4510 North 37th Avenue, Phoenix, AZ 85019 (602) 336-2920

Alhambra Traditional School

3736 West Osborn Road, Phoenix, AZ 85019 (602) 484-8816

Andalucia Middle School

4730 West Campbell Avenue, Phoenix, AZ 85031 (623) 848-8646

Fulfilling Your Destiny Christian Academy

2824 North 51st Avenue, Phoenix, AZ 85035 (602) 269-2192

Glenn. L Downs School

3600 North 47th Avenue, Phoenix AZ 85031 (623) 691-4200

Isaac Elementary District

3348 West McDowell Road, Phoenix, AZ 85009 (602) 455-6700

James W. Rice Primary School

4530 West Campbell Avenue, Phoenix, AZ 85031 (623) 848-8420

Joseph Zito Elementary School

4525 West Encanto Boulevard, Phoenix, AZ 85035 (602) 442-2500

Justine Spitalny Elementary School

3201 North 46th Drive, Phoenix, AZ 85031 (602) 691-4400

Mitchell Elementary School

1700 North 41st Avenue, Phoenix, AZ 85009 (602) 442-2600

Phoenix Union High School District

4502 North Central Avenue, Phoenix, AZ 85012 (602) 764-1100

P.T. Coe Elementary School

3801 West Roanoke Avenue, Phoenix, AZ 85009 (602) 442-2400

Pueblo Del Sol Middle School

3449 North 39th Avenue, Phoenix, AZ 85019 (602) 455-6900

St. Vincent de Paul Catholic School
3130 North 51st Avenue, Phoenix, AZ 85031

(623) 247-8595

C. Vulnerable Population Centers

The following is a list of vulnerable population centers, including places such as child care and assisted living facilities, in the West Central Phoenix WQARF sites community involvement area:

A Kiddies Kingdom

2318 North 35th Avenue, Phoenix, AZ 85009 (602) 278-1513

After School Program – P.T. Coe Elementary School

3801 West Roanoke Avenue, Phoenix, AZ 85009 (602) 442-2400

Alhambra Preschool - James W. Rice Primary School

4530 West Campbell Avenue, Phoenix, AZ 85031 (602) 246-5155

American Child Care Center

4715 West Thomas Road, Phoenix, AZ 85031 (602) 269-5045

Children's Campus

2830 North 43rd Avenue, Phoenix, AZ 85009 (602) 233-2218

Children's Wunderland, Inc.

3523 North 43rd Avenue, Phoenix, AZ 85031 (623) 278-1356

Encanto Palms Assisted Living

3901 West Encanto Boulevard, Phoenix, AZ 85009 (602) 352-0000

Head Start - Mitchell Elementary School

1700 North 41st Avenue, Phoenix, AZ 85009 (602) 442-2600

Mulberry Assisted Living LLC

3750 West Mulberry Drive, Phoenix, AZ 85019 (480) 329-6085

Out of This World Christian Child Care, Inc.

3849 West Encanto Boulevard, Phoenix, AZ 85009 (602) 272-3780

Robin's Nest

3420 North 35th Avenue, Phoenix, AZ 85017 (602) 272-0401

Southwest Network Behavioral Health Services

2042 North 35th Avenue, Phoenix, AZ 85019 (602) 285-4330

St. Vincent de Paul Preschool and Extended Care

3130 North 51st Avenue, Phoenix, AZ 85031 (623) 873-8060

Villas of Maryvale Terrace

4315 West Earll Drive, Phoenix, AZ 85031 (602) 488-3108

Appendix C – Local and State Elected Officials

As of the publication of this community involvement plan, the community involvement area for the West Central Phoenix Water Quality Assurance Revolving Fund sites falls under Phoenix City Council Districts 4, 5, and 7; Maricopa County Supervisorial District 5; and Arizona Legislature Districts 19, 29, and 30.

CITY Officials	COUNTY Supervisors	STATE Representatives	STATE Senators
City Hall 200 W. Washington St. Phoenix, AZ 85003 (602) 262-7111	Maricopa County 301 W. Jefferson St. 10 th Floor Phoenix, AZ 85003 (602) 506-3416	Arizona House of Representatives Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-4221	Arizona State Senate Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-3559
Mayor City of Phoenix Greg Stanton (602) 262-7111 No email available	County Supervisor District 5 Steve Gallardo (602) 506-7092 gallardos001@mail.maricopa.gov	Representative District 19 Mark A. Cardenas Room # 334 (602) 926-3014 mcardenas@azleg.gov	Senator District 19 Lupe Contreras Room # 313 (602) 926-5284 lcontreras@azleg.gov
Phoenix City Council Member District 4 Laura Pastor (602) 262-7447 council.district.4@phoenix.gov		Representative District 19 Diego Espinoza Room # 118 (602) 926-3134 despinoza@azleg.gov	Senator District 29 Martin Quezada Room # 313 (602) 926-5911 mquezada@azleg.gov
Phoenix City Council Member District 5 Daniel Valenzuela (602) 262-7446 council.district.5@phoenix.gov		Representative District 29 Richard C. Andrade Room # 125 (602) 926-3130 randrade@azleg.gov	Senator District 30 Robert Meza Room # 311 (602) 926-3425 rmeza@azleg.gov
Phoenix City Council Member District 7 Michael Nowakowski (602) 262-7492 council.district.7@phoenix.gov		Representative District 29 Ceci Velasquez Room # 124 (602) 926-3144 cvelasquez@azleg.gov	
		Representative District 30 Jonathan R. Larkin Room # 318 (602) 926-5058 jlarkin@azleg.gov	

CITY Officials	COUNTY Supervisors	STATE Representatives	STATE Senators
		<p>Representative District 30 Debbie McCune Davis</p> <p>Room # 333 (602) 926-4485 ddavis@azleg.gov</p>	

Appendix D – Community Advisory Board Members

The following table presents a list of the West Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites Community Advisory Board (CAB) members as of April 2015.

West Central Phoenix WQARF Sites CAB Co-Chairs		
Mel Butler (602) 212-1600 mel.butler@dprrealty.net	Elizabeth Zima (602) 256-3447 elizabeth.zima@phoenix.gov	
CAB Members		
Don Bogert (602) 242-8177 dlaab49@gmail.com	Chuch Gaidosh (602) 278-9411 charles.gaidosh@gmail.com	Barbara Keene (602) 542-0853 barbara.keene@att.net
David Nazionale (602) 326-2388 dnazionale@cox.net	Sheila Tran (602) 910-8764 stran8797@gmail.com	Laurel Welker (602) 206-4773 laurelwelker@yahoo.com

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Appendix E – Prospective Purchaser Agreements

The following table presents a list of parties that have requested, and received, prospective purchaser agreements from the Arizona Department of Environmental Quality for properties in or around the West Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites as of April 2015. The table includes purchaser name, property location, the date that public notices for these agreements were issued, and the dates these agreements became effective.

Purchaser Name	Property Location	Public Notice Date	Effective Date
Bakala Investment Properties, L.L.C	2930 West Osborn Road, Phoenix, AZ West Central Phoenix East Grand Avenue	2/06/2002	3/15/2002
F&B Mfg., LLC	4245 North 40 th Ave., Phoenix, AZ West Central Phoenix North Plume	09/13/2012	10/25/2012
MetalImpact LLC	4316 North 39 th Ave., Phoenix, AZ 4245 North 40 th Ave., Phoenix, AZ West Central Phoenix North Plume & 4245 North 40 th Ave., Phoenix, AZ West Central Phoenix North Plume	09/13/2012	10/25/2012

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Appendix F – Settlements

The following table presents a list of parties that have entered into consent decree settlements with the Arizona Department of Environmental Quality for properties in or around the West Central Phoenix Water Quality Assurance Revolving Fund (WQARF) sites as of April 2015. The table includes the party's name, the date the consent decree was signed by the judge, and the date that public notices for the settlements were issued.

Party Name	Date Consent Decree Signed by Judge	Public Notice Date	WQARF Site
F&B Mfg. Co.	05/05/1993	05/05/1993	West Central Phoenix North Plume
F&B Mfg. Co.	08/26/1999	08/26/1999	West Central Phoenix North Plume
Corning Inc.	09/18/1996	09/18/1996	West Central Phoenix West Osborn Complex
Nucor Corporation	09/22/1992	09/22/1992	West Central Phoenix West Osborn Complex
United Industrial Corporation	05/16/1996	05/16/1996	West Central Phoenix West Osborn Complex

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Appendix G – Media Outlets

The following list presents Phoenix media outlets that may be used by the public and Community Advisory Board members to promote information on the West Central Phoenix Water Quality Assurance Revolving Fund sites. The *Arizona Business Gazette* is the external media outlet that the Arizona Department of Environmental Quality will use to publish all public notices related to the site.

NEWSPAPERS AND MAGAZINES

THE ARIZONA BUSINESS GAZETTE (602) 444-8000
200 East Van Buren Street, Phoenix, AZ 85004

THE ARIZONA REPUBLIC (602) 444-8000
200 East Van Buren Street, Phoenix, AZ 85004

EAST VALLEY TRIBUNE (602) 898-6500
1620 West Fountainhead Parkway, Suite 219, Tempe, AZ 85282

LA VOZ (602) 444-3821
200 East Van Buren Street, Phoenix, AZ 85004

RADIO

ARIZONA NEWS RADIO NETWORK (480) 483-8415
(*Arizona news and sports to 30 stations*)
14605 North Airport Drive, Suite 370, Scottsdale, AZ 85260

BONNEVILLE INTERNATIONAL CORPORATION (602) 277-5827
(KMVP, KMVP-FM, KTAR, KTAR-FM)
7740 North 16th Street, Suite 200, Phoenix, AZ 85020

CBS RADIO STATIONS, INC. (602) 452-1000
(KMLE, KOOL-FM, KZON)
840 North Central Avenue, Phoenix, AZ 85014

CLEAR CHANNEL COMMUNICATIONS (602) 260-6000
(KESZ, KFYI, KGME, KNIX-FM, KMXP, KOY, KTZR, KXEW,
KYOT-FM, KZZP)
4686 East Van Buren Street, Suite 300, Phoenix, AZ 85008

MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT (480) 834-5627
(KBAQ, KJZZ)
2323 West 14th Street, Tempe, AZ 85281

RADIO (CONTINUED)

PHOENIX FCC LICENSE SUB, LLC (480) 838-0400
(KAZG, KDKB, KDUS, KSLX-FM, KUPD)
1900 West Carmen Street, Tempe, AZ 85283

RIVIERA BROADCASTING CO. (602) 648-9800
(KEXX, KKFR, KMVA, KOAI)
4745 North 7th Street, Suite 410, Phoenix, AZ 85014

SIERRA H. BROADCASTING, INC. (480) 994-9100
(KAJM, KNJR)
1710 East Indian School Road, #205, Phoenix, AZ 85016

UNIVISION RADION LICENSE CORPORATION (602) 308-7900
(KHOT-FM, KNOV-FM, KKMR, KOMR, KQMR)
4745 North 7th Street, Suite 140, Phoenix, AZ 85014

TELEVISION

KAET CHANNEL 8 (PBS) (602) 496-8888
555 North Central Avenue, Suite 500, Phoenix, AZ 85004

KNXV CHANNEL 15 (ABC) (602) 273-1500
515 North 44th Street, Phoenix, AZ 85008

KPHO CHANNEL 5 (CBS) (602) 264-1000
4016 North Black Canyon Highway, Phoenix, AZ 85017

KPNX CHANNEL 12 (NBC) (602) 257-1212
200 East Van Buren Street, Phoenix, AZ 85004

KSAZ CHANNEL 10 (FOX) (602) 257-1234
511 West Adams Street, Phoenix, AZ 85003

KTAZ CHANNEL 39 (Telemundo) (602) 648-3900
4625 South 33rd Place, Phoenix, AZ 85040

KTVW CHANNEL 33 (Univision) (602) 243-3333
6006 South 30th Street, Phoenix, AZ 85042

Appendix H – Related Agencies and Contact Information

The following list presents additional resources that may be used by the public and Community Advisory Board members to address concerns or questions related to the West Central Phoenix Water Quality Assurance Revolving Fund sites.

STATE OF ARIZONA

DEPARTMENT OF AGRICULTURE

1688 West Adams Street

Phoenix, AZ 85007

Phone: (602) 542-4373

DEPARTMENT OF HEALTH SERVICES

150 North 18th Avenue

Phoenix, AZ 85007

Phone: (602) 542-1025

DEPARTMENT OF WATER RESOURCES

GROUNDWATER PERMITTING AND WELLS SECTION

3550 North Central Avenue

Phoenix, AZ 85012

Phone: (602) 771-8527

CITY OF PHOENIX

CITY OF PHOENIX ENVIRONMENTAL PROGRAMS

200 West Washington Street, 14th Floor

Phoenix, AZ 85003

Phone: (602) 256-5669

PHOENIX WATER SERVICES DEPARTMENT

305 West Washington Street, #200

Phoenix, AZ 85003

Phone: (602) 262-6251

PUBLIC WORKS DEPARTMENT

Garbage and Recycling

200 West Washington Street, 7th Floor

Phoenix, AZ 85003

Phone: (602) 262-7251

OTHER

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Western Branch – Region 9

75 Hawthorne Street

Suite 100, M/S:HHS-1

San Francisco, CA 94105

Phone: (800) 232-4636

Consumer information line: (800) 223-0618

REAL ESTATE SELLER DISCLOSURES

Arizona Department of Real Estate

Phone: (602) 771-7799

<http://www.aaronline.com/wp-content/uploads/2013/01/seller-property-disclosure-statement.pdf>

Acronyms and Glossary of Terms

1,1-Dichloroethylene (1,1-DCE): A colorless liquid with a sharp odor that is used to make certain plastics, packaging materials, and flame retardant coatings. Typically, when found in the environment, it is a degradation product of other chlorinated solvents.

Aquifer: An underground lithologic formation composed of such materials as sand, soil, gravel, or bedrock that can store groundwater and supply it to wells and springs. In aquifers, groundwater occurs in sufficient quantities to be used for drinking water, irrigation, and other purposes.

Aquifer Water Quality Standards (AWQS): State of Arizona maximum levels for contaminants that apply to groundwater in aquifers designated for drinking water use. For example, the AWQS level for tetrachloroethene (PCE) is 5 micrograms per liter ($\mu\text{g/L}$).

Arizona Administrative Code (A.A.C.): The A.A.C. is where the official rules of the State of Arizona are published. The A.A.C. is the official compilation of rules that govern state agencies, boards, and commissions.

Arizona Department of Environmental Quality (ADEQ): ADEQ is the executive agency of the Arizona State Government mandated to enforce and administer the State's environmental laws and regulations.

Arizona Revised Statutes (A.R.S.): State laws adopted by the Arizona State Legislature.

Benzene, Toluene, Ethylbenzene, Xylene (BTEX): Compounds typically found in petroleum products such as gasoline and diesel fuel.

Cleanup: Actions taken that deal with a release or threat of a release of hazardous substances that could adversely affect public health and/or the environment. The word "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation, or corrective action.

Chromium: Chromium is an odorless and tasteless metallic element. Chromium is found naturally in rocks, plants, soil, humans, and animals. The most common forms of chromium that occur in natural waters in the environment are trivalent chromium (chromium-3), and hexavalent chromium (chromium-6). Chromium-3 has relatively low toxicity and would be a concern in drinking water only at very high levels of contamination. Chromium-6 is more toxic and poses potential health risks. People who use water containing total chromium in excess of the maximum contaminant level over many years could experience health concerns.

Community Advisory Board (CAB): A diverse group of community members interested in or affected by the presence of a WQARF site. By statute, ADEQ is required to form a CAB for each WQARF Registry site where ADEQ is initiating a Remedial Investigation. ADEQ seeks the CAB's input in the decision-making process and works with them from the onset of the

Remedial Investigation/Feasibility Study process until the requirements of the Record of Decision have been fulfilled.

Community Involvement Area: The mailing area of residences and businesses used in the notification for public meetings and other written notices regarding a site.

Community Involvement Coordinator: The ADEQ employee responsible for ensuring that all statutes and rules related to the involvement of the public and public outreach at WQARF sites are upheld and complied with by ADEQ. Community Involvement Coordinators manage and coordinate the work of CABs for WQARF sites.

Community Involvement Plan (CIP): A document that identifies techniques used by ADEQ and the U.S. Environmental Protection Agency to communicate effectively with the public during the cleanup process at a specific site. The CIP describes the site history, nature and history of community involvement, and concerns expressed during community interviews. In addition, the plan outlines methodologies and timing for continued interaction between the regulatory agencies and the public at the site.

Contamination: Any hazardous or regulated substance released into the environment.

Contaminant: Any physical, chemical, biological, or radiological substance or matter present in any media at concentrations that may result in adverse effects on air, water, or soil. A harmful or hazardous matter introduced into the environment that is not normally found there, or not naturally occurring

Early Response Action (ERA): Refers to a remedial action performed prior to the final remedy, and often prior to completion of the Remedial Investigation. An ERA addresses current risks to public health, welfare, and the environment; protects or provides a supply of water; addresses sources of contamination; or controls or contains contamination where such actions are expected to reduce the scope or cost of the remedy needed at the site. Also referred to as an Interim Remedial Action.

Feasibility Study (FS): A process to identify a reference remedy and alternative remedies that appear to be capable of achieving the Remedial Objectives for the site. It is often done as part of a two-phase investigation in conjunction with a Remedial Investigation.

Granular Activated Carbon (GAC): Treatment process used to remove dissolved contaminants from water or air by absorption.

Groundwater: Water located beneath the ground surface in soil pore spaces and in the fractures of geologic formations. A formation of rock or soil is called an aquifer when it can yield a usable quantity of water.

Hazardous Substance: Any material that, because of its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

Interim Remedial Action (IRA): An interim measure to remove or isolate contamination. This action can be taken at any time during the Superfund/WQARF process and is usually taken to protect people and the environment from high levels of contamination until the final Remedial Action can be taken.

Information Repository: The location where a collection of documents about a specific project is stored. Information on certain WQARF and Superfund sites may be available at ADEQ offices and libraries throughout the state.

Methyl Tertiary Butyl Ether (MTBE): A colorless liquid that is a derivative of fossil fuels. MTBE is a gasoline additive, used as an oxygenate to raise the octane number.

Monitored Natural Attenuation (MNA): Describes a range of physical and biological processes, which, unaided by deliberate human intervention, reduce the concentration, toxicity, or mobility of chemical or radioactive contaminants. These processes take place whether or not other active cleanup measures are in place.

Monitoring Wells (Monitor Wells): Wells installed for the purpose of collecting samples such as groundwater and soil gas. Analytical results from samples are used to characterize the extent of contamination, the direction of groundwater flow, and the types and quantities of contaminants present in the groundwater.

Nitrate: A compound containing nitrogen and oxygen that exists in the atmosphere or as a dissolved gas in water and has harmful effects on humans and animals. A plant nutrient and inorganic fertilizer, nitrate is found in septic systems, animal feed lots, agricultural fertilizers, manure, industrial waste waters, and sanitary landfills.

Operation and Maintenance (O&M): 1. Activities conducted after a WQARF/Superfund site action is completed to ensure that the action is effective. 2. Actions taken after construction to ensure that facilities constructed to remediate soil or groundwater, or treat wastewater will be properly operated and maintained to achieve normative efficiency levels and prescribed effluent limitations in an optimum manner. 3. Ongoing asbestos management plan in a school or other public building, including regular inspections, various methods of maintaining asbestos in place, and removal when necessary.

Plume: A well-defined area of contamination in groundwater, soil, or the air often used to describe the dispersion of contamination in soil and/or groundwater.

Potentially Responsible Parties (PRPs): Those parties (individuals, corporations) identified by state or federal authorities as potentially liable for cleanup costs at a contaminated site.

Preliminary Investigation (PI): The process of collecting and reviewing available information about a known or suspected hazardous waste site or release.

Proposed Remedial Action Plan (PRAP): A document that reviews the cleanup alternatives presented in the site Feasibility Study and identifies ADEQ's preferred alternative. Selection of a

preferred alternative is not a closed-end commitment to use that alternative; rather, it is a way for the agency to indicate, based on experience and expertise, which alternative is the most likely course of action. ADEQ must actively solicit public review of and comment on all the alternatives under consideration.

Public Comment Period: A period during which the public can formally review and comment on various documents and ADEQ actions.

Record of Decision (ROD): A legal document that announces and explains the cleanup methods ADEQ will use at a Superfund/WQARF site. The Record of Decision is based on information and technical analysis generated during the Remedial Investigation and Feasibility Study, and on consideration of comments received during the public comment record for the Proposed Remedial Action Plan.

Remedial Action (RA): Any action taken to investigate, monitor, assess and evaluate the release or threat of release of hazardous substances or contaminants to the environment. It may also refer to the actual “cleanup” of the environment by various removal, treatment, monitored remediation, or corrective actions. The term cleanup is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation, or corrective action.

Remedial Investigation (RI): Establishes the nature and extent of the contamination and the sources; identifies current and potential impacts to public health, welfare, and the environment; identifies current and reasonable foreseeable uses of land and waters of the state; and obtains and evaluates any information necessary for identification and comparison of alternative Remedial Actions.

Remedial Objective (RO): Established remedial goals for the current and reasonably foreseeable uses of lands and waters of the state that have been or are threatened to be affected by a release of hazardous substance.

Remediation: Cleanup or other methods used to remove or contain a toxic spill or hazardous materials.

Remedy: Cleanup method chosen for a site.

Responsible Party: An individual or company (e.g., an owner, operator, transporter, or generator of hazardous waste) that is responsible for the contamination problems at a Superfund/WQARF site. Whenever possible, responsible parties are required to clean up hazardous waste sites they have contaminated.

Responsiveness Summary: A summary of oral and written comments and ADEQ responses to those comments received during the public comment period.

Soil Vapor Extraction (SVE): Soil vapor extraction removes contaminant vapors from below ground for treatment above ground. Soil vapor extraction removes vapors from the soil above the

water table by applying a vacuum to pull the vapors out. The method is used for chemicals that evaporate easily, such as those found in solvents and gasoline.

Superfund: The program operated under the legislative authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) that funds and carries out solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions. It provides for the cleanup of hazardous substances released into the environment, regardless of fault. The term Superfund also is used to refer to cleanup programs designed and conducted under CERCLA and its subsequent amendments.

Tetrachloroethene or Tetrachloroethylene or Perchloroethene (PCE): A clear, colorless, liquid with a chloroform or sweet odor and a low boiling point; a solvent used for dry-cleaning; degreasing and drying metals and other solids; dissolving waxes, greases, oils, fats, and gums, and in other industrial applications. PCE is a potential occupational carcinogen.

Trichloroethene or Trichloroethylene (TCE): A colorless liquid used as a solvent, metal degreasing agent, and in other industrial applications. TCE is a known carcinogen.

Volatile Organic Compounds (VOC): A large group of carbon-containing compounds that are easily dissolved into water, soil, or the atmosphere and evaporate readily at room temperature. Examples of VOCs include PCE, TCE, benzene, toluene, ethylbenzene, and xylene. These contaminants are typically generated from metal degreasing, printed circuit board cleaning, gasoline, and wood preserving processes.

Water Quality Assurance Revolving Fund (WQARF): Also known as the State Superfund, WQARF is the program and funding used to address hazardous substance releases within the state that are not covered by other specific programs.